

## The Faste Laboratory is a VINNOVA Excellence Centre focusing Functional Product Innovation

### Idea

Functional Product Innovation will be the main contribution to sustainable growth in that the function provider will have the responsibility of the physical artefact throughout the life-cycle and by innovations also have the capacity to continuously improve the customer value.

### Vision

New methods and tools have been developed enabling functional products with optimized lifecycle cost and customer value.

### Objectives

To examine how physical artefacts and services may be designed and developed to become an element in a total offer, as well as enhance integrated product development to extend towards functional product development. The Faste Laboratory will therefore become a leading resource for sustainable growth lifecycle.

### Strategy

The focus on Functional Product Innovation, building on the strong and innovative research in Functional Product Development, Simulation Driven Design and Distributed Collaborative Engineering, creating the capability to identify, model and simulate offer components in the early phases of the development process, and to support a closer collaboration between value-chain partners.

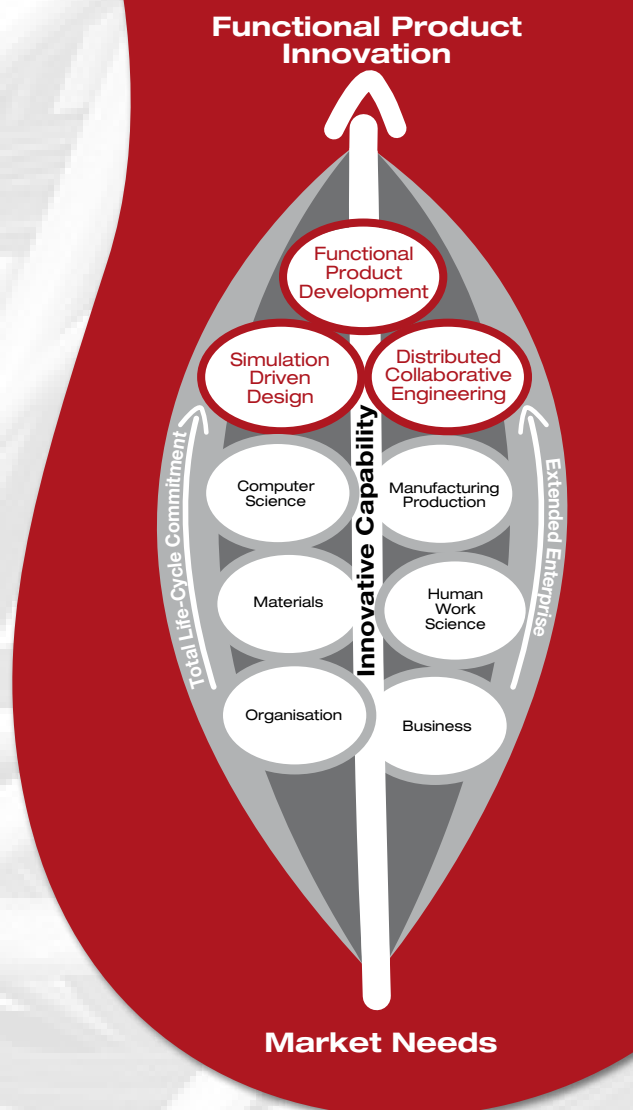
### Results

An extensive collaboration through industry demonstrators, workshops and research meetings. The results include:

- A prototype computer model by which it is possible to predict the readiness level of total offers
- Identification of several groups of potential new products at the partner companies
- Methods to facilitate indentifying and communicate customer needs
- Methods for simulation driven functional product development

### The Faste Laboratory partners

AB Sandvik Coromant, BAE Systems Hägglunds AB, Gestamp HardTech AB, Hägglunds Drives AB, LKAB, Luleå University of Technology (Division of Computer Aided Design, Division of Fluid Mechanics, Division of Functional Product Development, Division of Material Mechanics, Division of Solid Mechanics and Division of Entrepreneurship), Volvo Aero, Volvo Car Corporation, Volvo Construction Equipment



### Contact

Lennart Karlsson  
Centre Director and Member of Executive Committee  
CELL: +46(0)70-590 32 42  
TEL: +46(0)920-491 279  
E-MAIL: lennart.karlsson@ltu.se

### Web pages

[www.ltu.se/tfm/faste](http://www.ltu.se/tfm/faste)